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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/533,159

**Applicant(s)**

YAMAMOTO ET AL.

**Examiner**

RIP A. LEE

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on May 20, 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 3-7, 9, 10, 12-14, 17 and 18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-7, 9, 10, 12-14, 17, and 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/808)  
Paper No(s)/Mail Date 05-19-2008
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

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### **DETAILED ACTION**

This office action follows a response filed on May 20, 2008. Claims 1, 4, 5, 7, 9, 13, 14, 17, and 18 were amended, and claims 2, 8, 11, 15, and 16 were canceled. Claims 1, 3-7, 9, 10, 12-14, 17, and 18 are pending.

#### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. There is insufficient antecedent basis for the term “the polyamide fibers” in the claim.

#### ***Claim Rejections - 35 USC § 103***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1, 4-7, 9, 13, 14, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto *et al.* (JP 11-106570).

Yamamoto *et al.* teaches a composition comprising 90-40 parts by weight (pw) of a polyolefin, 10-60 pw of polyamide fiber, and silane coupling agent (abstract). The ratio of polyolefin to polyamide lies well within the range of 1:1 to 9:1, as recited in the instant claims. Fibers have a diameter of less than 1  $\mu\text{m}$  and an aspect ratio of 20-1000 (see abstract and paragraph [0017]), and they have the same dimensions of polyamide fibers described in the instant claims. Silane coupling agents are disclosed in paragraph [0013], and they are identical to those taught in the instant specification. Working examples of Yamamoto *et al.* teach

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specifically use of  $\gamma$ -methacryloylpropyl trimethoxysilane; this is the same coupling agent utilized in working examples of the instant application. Compositions contain reinforcing filler such as "white carbon," which is silica; paragraph [0025]. Working examples do not show compositions containing reinforcing filler, however, it would have been obvious to one having ordinary skill in the art would have found it obvious to use white carbon filler as suggested in order to impart mechanical strength to the resin composition. In summary, it would have been obvious to one having ordinary skill in the art to make the composition recited in the instant claims.

As to the process of making said composition, Yamamoto *et al.* teaches melt-kneading of the polyolefin, the polyamide fiber, and the silane coupling agent. This process takes place in a Banbury mixer, a kneader, a kneader-extruder, shaft kneading machine, or an open roll (paragraph [0018] and [0019]). One of ordinary skill in the art making the composition of Yamamoto *et al.* comprising silica as reinforcing filler would have found it obvious to melt-kneading the filler with the other ingredients in order to disperse the filler into the resin.

With regard to the limitation "polyamide fibers comprised of silica particles," it is the examiner's position that the composition of Yamamoto *et al.* comprising silica as reinforcing filler constitutes "polyamide fibers comprised of silica particles." Note that coupling agents are identical to those of the instant invention, and the same chemistry would be expected to take place during melt-kneading such that silica would be linked to the polyamide fiber through the coupling agent.

5. Claims 3, 10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto *et al.* (JP 11-106570) in view of Segal (U.S. 4,207,373).

The discussion of the disclosures of the prior art from the previous paragraph of this office action is incorporated here by reference. Yamamoto *et al.* does not specify a particular amount of reinforcing filler, however, one having ordinary skill in the art would have found it obvious to use an amount sufficient to impart the reinforcing effect, but not in excess that the composition can not be processed and extruded. Segal teaches that mechanically strong and impact resistant fiber reinforced polyolefin compositions have been prepared using an optimized

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amount of 10-60 wt % of siliceous filler (abstract, col. 2, lines 20-25, col. 3, lines 22-26). The combination of references would have suggested to one of ordinary skill in the art to use the optimized amount of filler in Segal for making a filler reinforced composition of Yamamoto *et al.*, and one would have expected this quantity to be sufficient to impart a reinforcing effect without impairing melt processing of the composition. Therefore, it would have been obvious to one having ordinary skill in the art, in absence of any showing of criticality or unexpected results, to use 10-60 wt % of silica filler in the composition of Yamamoto *et al.*, and one of ordinary skill in the art would have expected the combination of teachings to work with a high degree of success.

### ***Double Patenting***

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1 and 3-6 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6 of Yagi *et al.* (U.S. Patent No. 7,041,726). Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims recite substantially the same composition.

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Claims of Yagi *et al.* recite a polyamide ultrafine fibers-dispersed resin polyolefin composition comprised of polyolefin, polyamide fibers, silane coupling agent and silica particles (claim 1) such that polyamide fibers are comprised of silica particles (claim 2). The content of silica particles falls within the range of 1-100 parts by weight, relative to 100 parts by weight of polyolefin (claim 3). The ratio of polyolefin to polyamide fibers is 1:1 to 9:1 (claim 4), and preferably 4:1 (claim 5). The fiber diameter of polyamide is not greater than 1  $\mu\text{m}$ . and the aspect ratio falls within the range of 20 to 1000 (claim 6).

8. Claims 1 and 3-6 are directed to an invention not patentably distinct from claims 1-6 of commonly assigned U.S. 7,041,726 for the same reasons set forth in previous paragraph 8.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned U.S. 7,041,726, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned *at the time the invention in this application was made*, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

9. Claims 1 and 3-6 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7 of copending Application No. 10/532,995. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims recite substantially the same composition.

Claims of the copending application recite a polyamide ultrafine fibers-dispersed resin polyolefin composition comprised of polyolefin, polyamide fibers, silane coupling agent and

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silica particles (claims 1 and 5) wherein polyamide fibers are comprised of silica particles (claims 4 and 6). The ratio of polyolefin to polyamide fibers is 1:1 to 9:1 (claim 2), and preferably 4:1 (claim 3). The fiber diameter of polyamide is not greater than 1  $\mu\text{m}$ . and the aspect ratio falls within the range of 20 to 1000 (claim 7).

The disclosure defines the amount of silica particles as 100 parts by weight or less and preferably 60 parts by weight or less (page 9). Applicant's attention is drawn to MPEP § 804 where it is disclosed that "the specification can always be used as a dictionary to learn the meaning of a term in a patent claim." *In re Boylan*, 392 F. 2d 1017, 157 USPQ 370 (CCPA 1986). Further, those portions of the specification which provide support for the patent claims may also be examined and considered when addressing the issue of whether a claim in an application defines an obvious variation of an invention claimed in the patent. *In re Vogel*, 422 F.2d 438, 164 USPQ 619,622 (CCPA 1970).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

10. Claims 1 and 3-6 are directed to an invention not patentably distinct from claims 1-6 of commonly assigned for the same reasons set forth in previous paragraph 10.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned U.S. 7,041,726, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned *at the time the invention in this application was made*, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly

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assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

### ***Response to Arguments***

11. Applicant's claim to priority is proper; the national stage application was filed on April 26, 2005, which is within the 30-month requirement. Remarks set forth in paragraph 1 of the previous office action dated December 20, 2007 have been withdrawn. Additionally, the rejections set forth in paragraphs 18 and 19 have been withdrawn.

The rejection of claims under 35 U.S.C. 112, 2nd paragraph, set forth in paragraphs 8 and 9 of the previous office action have been withdrawn in view of claim amendments.

The rejection of claims based on Segal (U.S. 4,207,373), set forth in paragraphs 13-15 of the previous office action have been withdrawn in view of claim amendments. The claims are not rejectable under 35 U.S.C. 102(b) as being anticipated by Segal.

The rejection of claims over Yamamoto *et al.* (JP 11-106570), set forth in paragraphs 16 and 17 of the previous office action have been withdrawn; new grounds of rejection based on this reference have been presented in paragraphs 5 and 6, above. Applicant contends in their response that Yamamoto *et al.* does not disclose "polyamide fibers comprised of silica particles." As indicated in paragraph 5, *supra*, based on the fact that the prior art discloses use of the same type of coupling agent, the same chemistry would be expected to take place during melt-kneading such that silica would be linked to the polyamide fiber through the coupling agent.

The obviousness type double patenting rejections set forth in paragraphs 3 and 4 of the previous office action have been withdrawn; new rejections based on amended claims have been presented in paragraphs 8-12 of this office action. Applicant traverses the obviousness type double patenting rejections on the basis of intended use; the patent relates to an insulating member, the copending application relates to a resin composition for use in electric wire sheaths, and the instant claims relate to a composition for use in industrial products.

This is not found persuasive since intended because instant claims recite a composition independent of intended use or application. Note that claims of the patent and copending application are drawn to substantially the same composition as that of the instant claims. In fact,

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the claims of the instant application are generic to, *i.e.*, fully encompass, the claims of the copending application, and therefore, the claims of the instant application are anticipated by the claims of the copending application. Based on these considerations, the obviousness type double patenting rejections have been maintained.

### ***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu S. Jagannathan, can be reached at (571)272-1119. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<http://pair-direct.uspto.gov>>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

/Rip A. Lee/  
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August 13, 2008